DOCUMENT RESUME

ED 311 575 EA 021 346

AUTHOR Binkley, M. Edward; Hooper, Richard W.
TITLE Statistical Profile of Students Who Dropped Out of High School during School Year 1987-88.
INSTITUTION Nashville - Davidson County Metropolitan Public Schools, Tenn.
PUB DATE Jun 89
NOTE 51p.
PUB TYPE Reports - Research/Technical (143)

EDRS PRICE MF01/PC03 Plus Postage.
DESCRIPTORS Attendance; *Dropout Characteristics; Dropout Research; *Dropouts; High Schools; *High School Students; *Out of School Youth; Potential Dropouts; *Student Attrition; *Withdrawal (Education)
IDENTIFIERS *Nashville Metropolitan Public Schools TN

ABSTRACT

Behind the negative composite profile of school dropouts often lie the internalized characteristics of low self-esteem, thwarted ambition, and personal failure. This document presents an analysis of several different demographic, behavioral, and academic characteristics of students who withdrew from grades 9, 10, 11, and 12 in the Nashville Metropolitan Public Schools in 1987-88. Only those students who voluntarily withdrew due to academic difficulty, lack of interest in school, parental influence, or economic reasons were included. The results show that: (1) 61.4 percent of the 1,128 1987-88 dropouts were male; (2) the dropouts tended to be overage in comparison to their peers at any given level; (3) the attendance rate for withdrawing students mean attendance rate averaged between 75.1 and 81.4 percent while the general student population attendance rate for grades 9 through 12 was above 90 percent; and (4) the achievement test scores for dropouts were lower than their peers'. Upon examination of the statistical profile on dropouts presented within this document, it becomes evident that there is a strong relationship among the variables typically associated with these students. Systemwide attention to addressing any one of the variables will undoubtedly help in remediation of the others. (KM)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

ED311575

STATISTICAL PROFILE OF STUDENTS WHO DROPPED OUT OF HIGH SCHOOL DURING SCHOOL YEAR 1987-88

by

M. Edward Binkley
Richard W. Hooper

Department of Research and Evaluation
Metropolitan Board of Public Education
Nashville, Tennessee

June 1989

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

X This document has been reproduced as received from the person or organization originating it.

☐ Minor changes have been made to improve reproduction quality.

• Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

BEST COPY AVAILABLE

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY R. W. Hooper

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

EA 021 346

COORDINATOR OF GROUP TESTING AND DATA COLLECTION
Richard W. Hooper

DIRECTOR OF RESEARCH AND EVALUATION
M. Edward Binkley

ASSISTANT SUPERINTENDENT FOR
CURRICULUM AND INSTRUCTIONAL SERVICES
Lucille Nabors

DIRECTOR OF SCHOOLS
Charles O. Frazier

METROPOLITAN NASHVILLE BOARD OF PUBLIC EDUCATION

C. Dewey Branstetter, Chairman
Mrs. June Lambert, Vice-Chairman

Mrs. Pat Bentrup
Vern Denney
Charles E. Gann
Edward T. Kindall
N. Tom Hightower
Isaac Northern, Jr.
Kent M. Weeks

Statistical Profile of
Students Who Dropped Out of High School
During School Year 1987-88

CONTENTS

Research Questions

Page

1. How many students dropped out of school during 1987-88 from each high school and by grade level?..... 2

2. How were dropouts distributed by race and grade level?..... 3

3. How were dropouts distributed by sex and by grade level?..... 5

4. How were dropouts distributed by age level?..... 7

5. How long were students on roll during 1987-88 before dropping out of school?.....10

6. How would dropout students' attendance and absences be characterized for the year 1987-88?.....12

7. How many students (dropouts) were suspended from school during 1987-88? How many days were students suspended from school?.....15

8. How well did the dropouts perform on the state mandated Stanford Test of Academic Skills (TASK 2) ?.....22

9. How well did tenth grade dropouts (W-6 withdrawal code) perform on the Tennessee Proficiency Test (TPT)?.....35

Tables

Page

1. Dropouts by School, by Grade..... 2

2. Dropouts by Race, by Grade..... 3

3. Dropouts by Sex, by Grade..... 5

4. Ages on September 30, 1987, by Grade..... 7

5. Ages at Withdrawal, by Grade..... 8

6. Dropouts by Number of Days Enrolled, by Grade.....10

7. Attendance Rates, Average Days Present/Absent.....12

8. Month of Withdrawal by Grade.....14

9. Number of Dropout Students Suspended by Grade.....15

10. Suspension Frequencies, Percentages, and Means.....17

11. Suspension Frequencies and Percentages.....19

12. READING Subtest (TASK 2), Stanine Distribution and Mean Scores by Grade Level.....25

13. LANGUAGE Subtest (TASK 2), Stanine Distribution and Mean Scores by Grade Level.....27

14. MATHEMATICS Subtest (TASK 2), Stanine Distribution and Mean Scores by Grade Level.....29

15. SCIENCE Subtest (TASK 2), Stanine Distribution and Mean Scores by Grade Level.....31

16. SOCIAL SCIENCE Subtest (TASK 2), Stanine Distribution and Mean Scores by Grade Level.....33

17. Tennessee Proficiency Test Results.....36

Figures

Page

1. Breakdown by Racial Categories..... 4

2. Breakdown by Sex Categories..... 6

3. Mean Age at Withdrawal..... 9

4. Mean Days Enrolled.....11

5. Mean Attendance Rates.....13

6. Suspension Percentages.....16

7. Mean Days Suspended.....18

8. Percentage Suspension by Days.....20

9. Students Suspended One or More Times.....21

10. TASK 2 Reading Mean Stanines.....26

11. TASK 2 English Mean Stanines.....28

12. TASK 2 Mathematics Mean Stanines.....30

13. TASK 2 Science Mean Stanines.....32

14. TASK 2 Social Science Mean Stanines.....34

15. Proficiency Test: Percentage of Students Passing.....37

Statistical Profile of
Students Who Dropped Out of High School
During School Year 1987-88

Numerous studies of early school leavers give quite a negative composite profile of these students. Typically, such a profile includes a history of low achievement, poor attendance, grade retention, disciplinary infractions, and other negative behavioral patterns. These are the "outward" descriptions of the dropout, the "hard" data. More disturbing than the external symptoms regarding dropouts are the internalized characteristics of low self-esteem, thwarted ambition, and personal failure. These social and emotional variables are much more difficult to quantify but are, nonetheless, crucial to an understanding of the total complex of issues dealing with dropouts. (Other variables to consider are: poverty, broken homes, deteriorating neighborhoods, drugs, isolation, poor role models, lack of confidence, low expectation, intellectual development, lack of encouragement, peer/home values, motivation, and unwed parenthood.)

Not all dropouts are destined to failure as adults. It is important to remember that some students who leave school early do not conform to the statistical composite. They have high achievement test scores and some even have perfect attendance records prior to leaving school. Certainly they are not all troublemakers nor are they all socially and emotionally maladjusted. Furthermore, some who drop out of school find alternative avenues for continuing their education at a later date. Others find their way into the job market and continue to learn. Fortunately, many find later success by building on the skills they acquired in school in spite of leaving high school before finishing.

The dropout problem, obviously, is not just a high school problem. Major forces leading to eventual dropout often may be evident before a child reaches school age and certainly the early warning signs are discernible in the lower grades.

The purpose of this report is to summarize existing data on students who dropped out of high school during the school year 1987-88. The report does not deal with students who dropped out during the summer. Data were obtained from the 1987-88 master attendance file and from state achievement test files. Nine research questions relating to achievement, behavior, attendance, and demographics were addressed.

1. How many students dropped out of school during 1987-88 from each high school and by grade level?

Table 1 gives the number of students by school and by grade level who dropped out of school (W-6)[1] during 1987-88. There were 1124 dropouts during the year: 303 from grade 9; 300 from grade 10; 314 from grade 11; and 206 from grade 12.

Table 1

Dropouts by School, by Grade
1987-88

Grade	9	10	11	12	TOTAL
Antioch	16	22	31	16	85
Glencliff	35	28	34	23	120
Hillsboro	17	26	20	19	82
Hillwood	14	15	11	10	50
Hume-Fogg	0	0	1	0	1
Hunters Lane	36	33	33	27	129
McGavock	50	46	65	29	190
Maplewood	38	25	13	15	91
Overton	9	24	27	8	68
Pearl-Cohn	39	27	36	21	123
Stratford	29	35	28	28	120
Whites Creek	20	20	15	10	65
Other	3	1	0	0	4
TOTAL	306	302	314	206	1128
%	27.1%	26.8%	27.8%	18.3%	100%

[1] W-6 is the withdrawal code number 6: Voluntary withdrawal at legal age of 17 because of academic difficulty, lack of interest in school, parental influence, and economic reasons.

2. How were dropouts distributed by race and grade level?

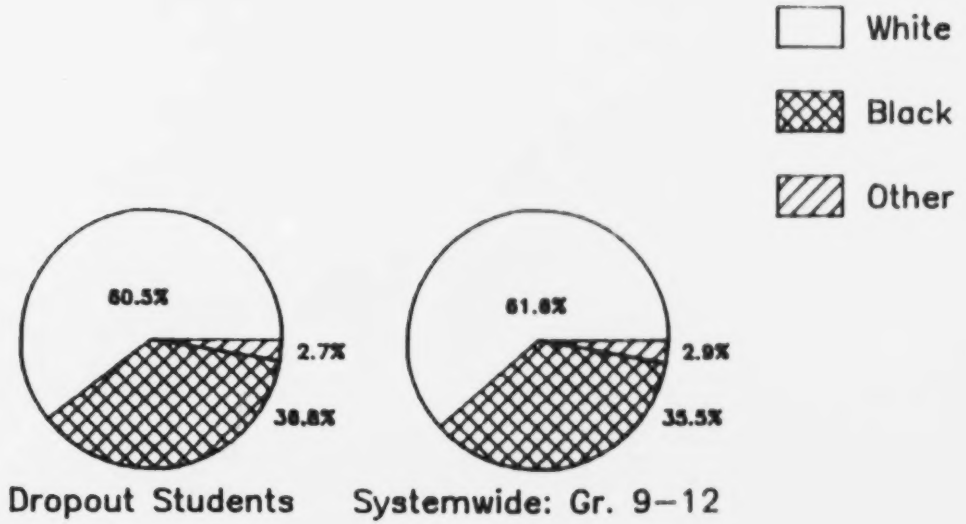
Results of the analysis of dropouts by race indicated that 36.8% were black; 60.5% white; and 2.7% other (see Table 2). Table 2 also shows that 27.1% of dropouts were from grade 9; 26.8% from grade 10; 27.8% from grade 11; and 18.3% from grade 12. Dropouts (W-6) as a percentage of enrollment at each grade level were: grade 9, 5.6%; grade 10, 7.1%; grade 11, 7.6%; grade 12, 5.9%, grades 9 through 12 combined, 6.5%.

Table 2

Dropouts by Race, by Grade
1987-88

	GRADE					
Race	9	10	11	12	TOTAL	SYSTEM
Black	135 44.1%	103 34.1%	109 34.7%	68 33.0%	415 36.8%	6142 35.5%
White	160 52.3%	188 62.3%	200 63.7%	135 65.5%	683 60.5%	10,657 61.6%
Other	11 3.6%	11 3.6%	5 1.6%	3 1.5%	31 2.7%	501 2.9%
TOTAL	306	302	314	206	1128	17,300
Grade as % of Grand Total	27.1%	26.8%	27.8%	18.3%		
Systemwide Enrollment	5445	4268	4114	3473		17,300
Dropouts as Percentage of Enrollment	5.6%	7.1%	7.6%	5.9%		6.5%

FIGURE 1. BREAKDOWN BY RACIAL CATEGORIES GRADES 9 THROUGH 12: 1987–88



3. How were dropouts distributed by sex and by grade level?

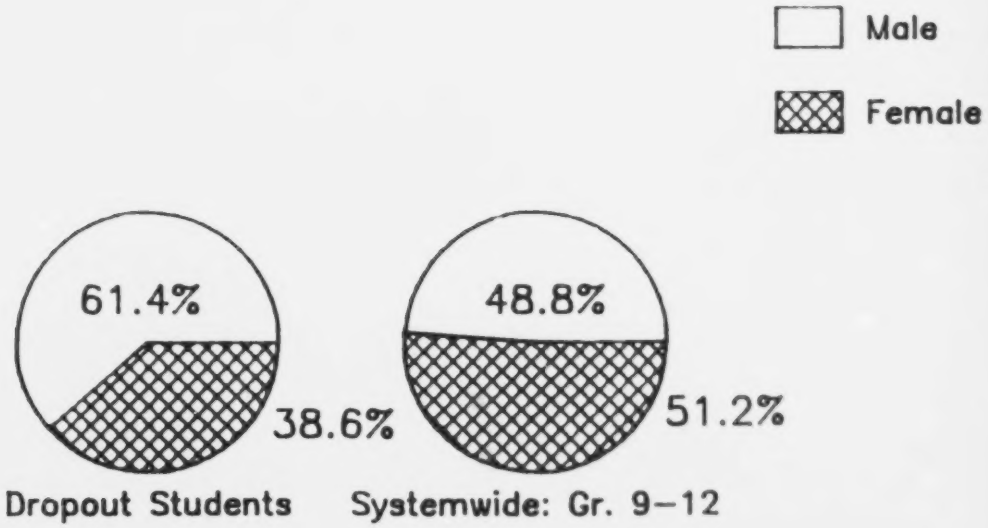
Overall, females accounted for 38.6 percent of the dropouts, with males accounting for 61.4 percent. The proportion of female dropouts in grade 9 was 34.0%; 36.8% in grade 10; 42.7% in grade 11 ; and grade 41.7% in grade 12 (see Table 3).

Table 3

Dropouts by Sex, by Grade
1987-88

	GRADE					
Sex	9	10	11	12	TOTAL	SYSTEM
Female	104 34.0%	111 36.8%	134 42.7%	86 41.7%	435 38.6%	8,858 51.2%
Male	202 66.0%	191 63.2%	180 57.3%	120 58.3%	693 61.4%	8,442 48.8%
TOTAL	306	302	314	206	1128	17,300
Systemwide Enrollment	**5445**	**4268**	**4114**	**3473**		17,300
Dropouts as Percentage of Enrollment	**5.6%**	**7.1%**	**7.6%**	**5.9%**		6.5%

FIGURE 2. BREAKDOWN BY SEX CATEGORIES GRADES 9 THROUGH 12: 1987-88



4. How were dropouts distributed by age level?

Metro Schools' attendance policy requires that a student be six years old on or before September 30 in order to enroll in grade one. The distribution of dropouts by age for each grade level was analyzed by calculating each student's age as of September 30, 1987. An age range of 14 to 14.99 years is normal for entering 9th graders; 15 to 15.99 for grade 10; 16 to 16.99 for grade 11; and 17 to 17.99 for grade 12. Students who have repeated grades are older than these standard ages (see Table 4).

Table 4 shows the age distribution in each grade for the students in this study. Note that 100% of the ninth and tenth grade students were overage for their grade groupings. For grade eleven, 243 of 305 students with valid ages (79.7%) were overage; for grade twelve, 110 of 205 (53.7%) were overage. Overall, 922 of 1128 (81.7%) of the dropouts were overage for their respective geade levels.

Table 4
Ages on September 30, 1987, by Grade

AGE	GRADE 9	10	11	12
				age appropriate
16 - 16.99	129	89	62	9
overage				
17 - 17.99	128	148	145	86
18 - 18.99	19	47	83	77
19 - 19.99	2	5	13	28
20 - 20.99	0	2	2	5
Age not marked	28	11	9	1
TOTAL	306	302	314	206
Mean Age on September 30	17.2	17.4	17.7	18.2

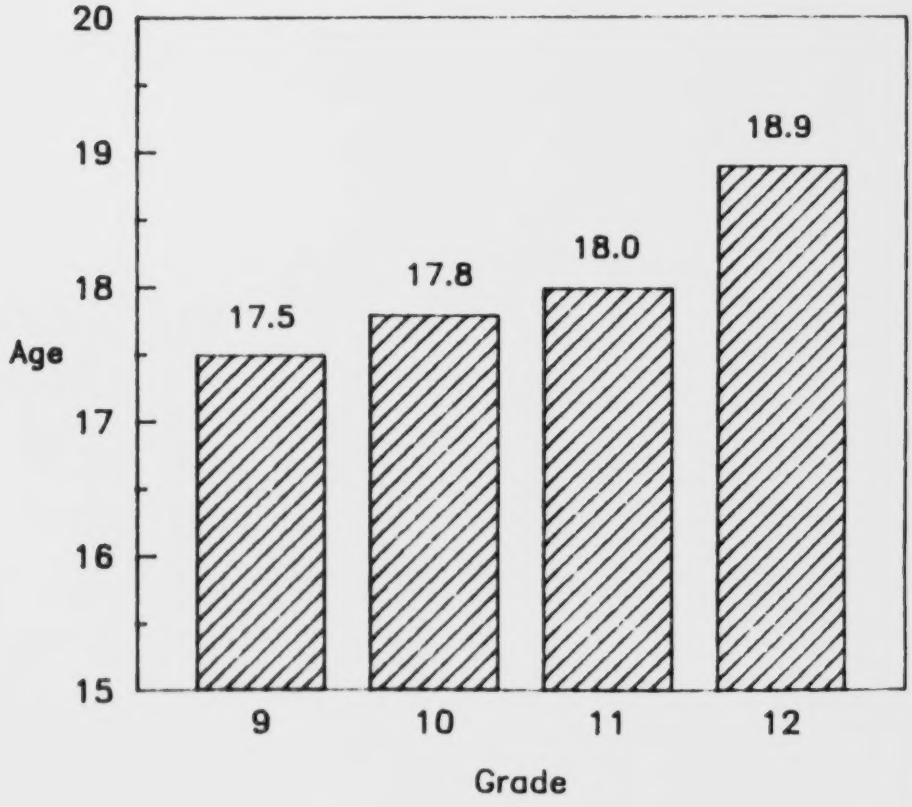
Additionally, Table 5 shows the average age by grade at the time of leaving school. These averages were 17.5 years for grade 9, 17.8 years for grade 10, 18.0 years for grade 11, and 18.9 years for grade 12.

Table 5

Ages at Withdrawal, by Grade
1987-88

AGE	GRADE			
	9	10	11	12
17 - 17.99	236	195	167	65
18 - 18.99	40	78	105	84
19 - 19.99	2	16	31	44
20 - 20.99	0	2	1	11
21 - 21.99	0	0	1	1
Age not marked	28	11	9	1
TOTAL	306	302	314	206
Mean Age at withdrawal	17.5	17.8	18.0	18.9

FIGURE 3. MEAN AGE AT WITHDRAWAL GRADES 9 THROUGH 12: 1987–88



5. How long were students on roll during 1987-88 before dropping out of school?

The distribution of dropouts by number of days enrolled for each grade is found in Table 6. This table shows that on the average students were on roll approximately four attendance months before withdrawing from school.

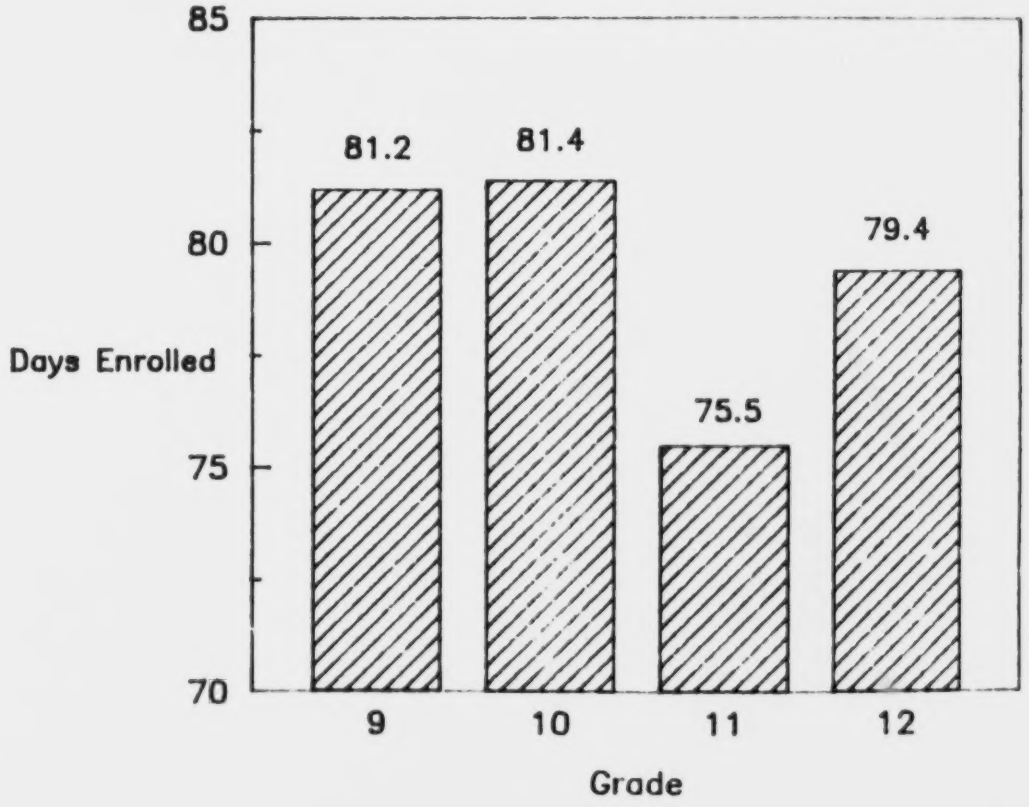
Table 6

Dropouts by Number of Days Enrolled, by Grade
1987-88

Number Months Enrolled	Days	GRADE 9	10	11	12
1	1 - 20	25	23	32	16
2	21 - 40	55	50	61	31
3	41 - 60	33	43	50	33
4	61 - 80	41	32	36	31
5	81 -100	50	40	32	26
6	101 -120	35	46	34	28
7	121 -140	25	38	38	19
8	141 -160	28	30	26	16
9	161 -175*	14	0	5	6
	TOTAL	306	302	314	206
Mean days enrolled		81.2	81.4	75.5	79.4

* Maximum for any student who dropped out within regular 180 day school year.

FIGURE 4. MEAN DAYS ENROLLED: DROPOUT STUDENTS GRADES 9 THROUGH 12: 1987-88



6. How would dropout students' attendance and absences be characterized for the year 1987-88?

Table 7 gives attendance and absence data including attendance rates for each grade level. This analysis indicates that the average number of days present ranged from 60 to approximately 65 days while the average number of days on roll was approximately 80 days.

Table 7

Attendance Rates, Average Days Present/Absent

	Number of Students Per Grade			
Attendance Rate	9	10	11	12
11 - 25 %	10	8	2	1
26 - 50 %	35	25	24	10
51 - 75 %	83	65	85	53
76 - 85 %	61	61	51	54
86 - 99 %	76	95	92	50
100 %	41	48	60	38
TOTAL	306	302	314	206
Mean Attendance Rate for Dropouts	75.1%	78.9%	80.3%	81.4%
Mean Attendance Rate for System	90.6%	92.2%	92.6%	93.0%
Mean Days Present for Dropouts	59.8	64.4	60.9	64.9
Mean Days Absent for Dropouts	21.4	17.0	14.6	14.5

FIGURE 5. MEAN ATTENDANCE RATES DROPOUTS VS. REGULAR STUDENTS: 1987–88

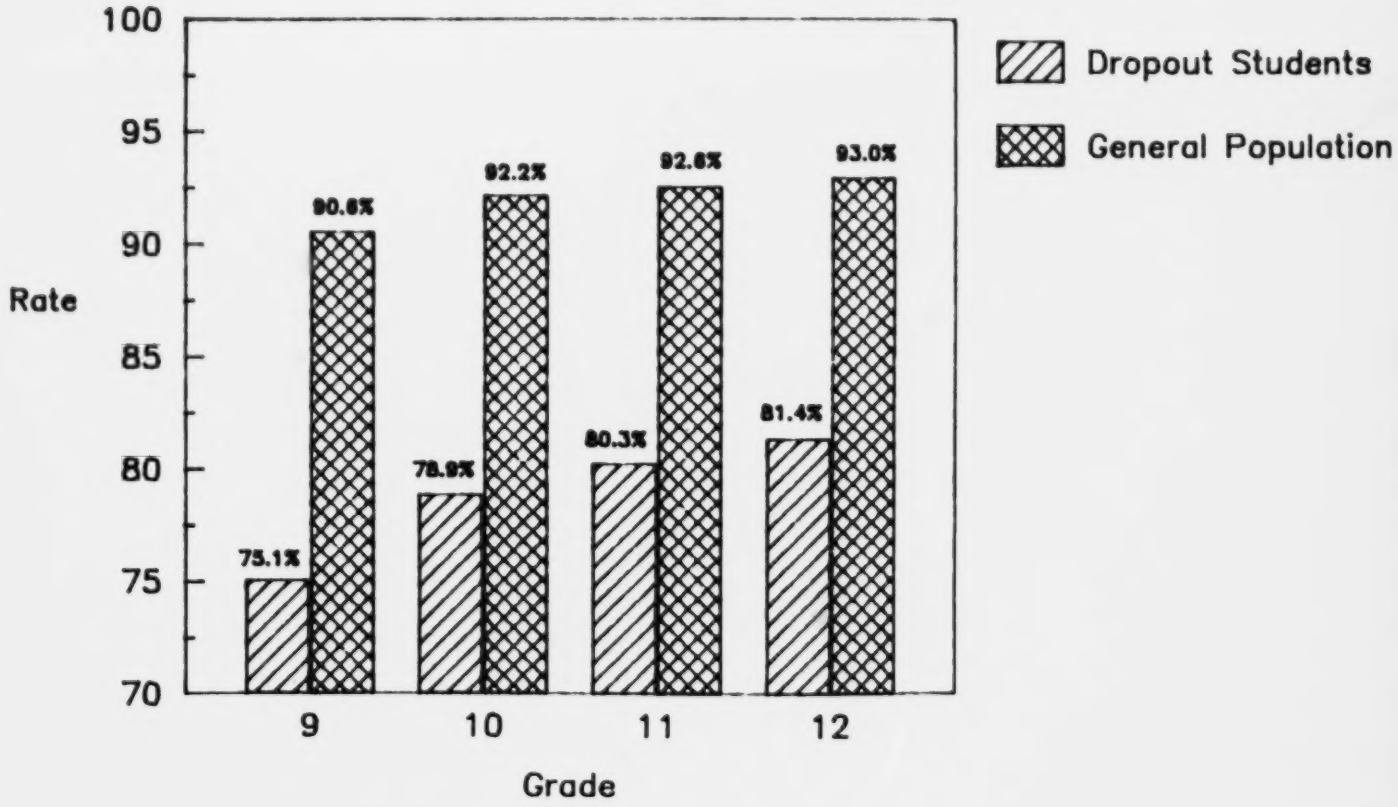


Table 8 shows when students dropped out of school month by month. Four hundred forty seven (447), 39.6%, dropped out in the first semester, compared to 677 (60.4%) in the second semester.

Table 8

Month of Withdrawal by Grade

	GRADE				
Month	9	10	11	12	TOTAL
August	5	4	4	3	16
September	27	24	33	4	88
October	44	34	42	30	150
November	30	36	42	31	139
December	14	13	17	10	54
January	33	29	25	19	106
February	42	37	44	36	159
March	31	47	31	22	131
April	39	53	46	25	163
May	41	25	30	26	122
TOTAL	306	302	314	206	1128

7. How many students (dropouts) were suspended from school during 1987-88? How many days were students suspended from school?

Attendance records for 1987-88 indicated that, of the 1128 students who dropped out of school, 264 (23.4%) were suspended from school. Suspension rates for dropouts for grades 9-12 were 30.4%, 30.5%, 16.2%, and 13.6%, respectively. Overall, the the percentage of dropout students who were suspended was 23.4% (see Table 9).

Table 9

Number of Dropout Students Suspended by Grade
1987-88

	GRADE				TOTAL
	9	10	11	12	
Number of Students Suspended One or More Times	93	92	51	28	264
Number of Dropouts	306	302	314	206	1128
Percentage	30.4%	30.5%	16.2%	13.3%	23.4%
Systemwide Number of Students Suspended	1505	919	637	298	3359
Enrollment	5445	4268	4114	3473	17,300
Percentage	27.6%	21.5%	15.5%	8.5%	19.4%

FIGURE 6. SUSPENSION PERCENTAGES DROPOUTS VS. REGULAR STUDENTS: 1987–88

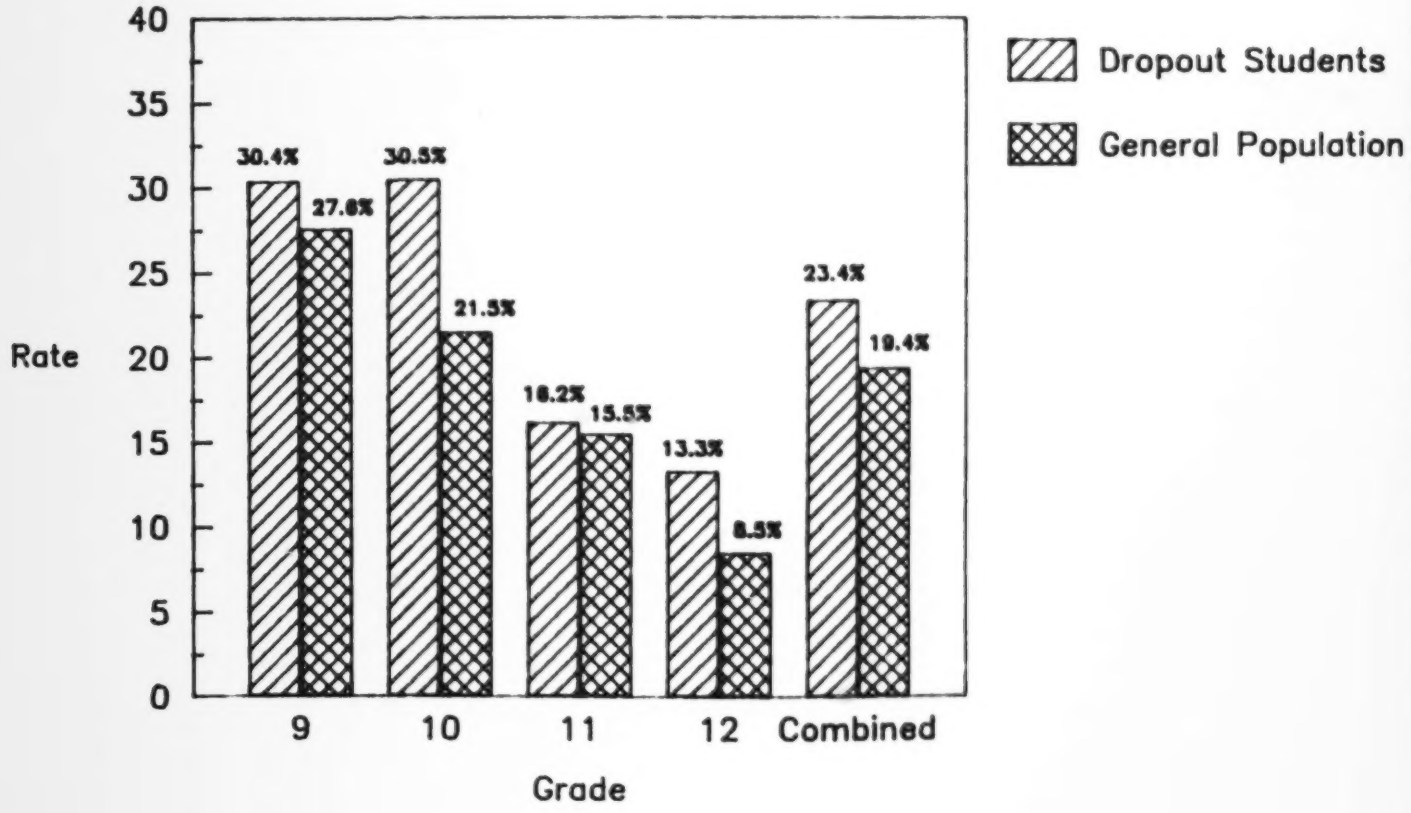


Table 10 gives the number of days suspended for dropouts. For all dropouts the mean number of days missed due to suspensions were 1.73 days for grade 9; 1.66 for grade 10; 0.77 for grade 11; and 0.78 for grade 12. For dropout students who were suspended, meandays suspended were: grade 9, 5.68; grade 10, 4.64; grade 11, 2.52; grade 12, 5.71.

Table 10

Suspension Frequencies, Percentages, and Means
1987-88

Number of Days Suspended	GRADE 9 Number	(%)	GRADE 10 Number	(%)	GRADE 11 Number	(%)	GRADE 12 Number	(%)
None	213	(69.6)	210	(69.5)	263	(83.8)	178	(86.4)
1 - 5	57	(18.6)	66	(21.9)	38	(12.1)	18	(8.7)
6 - 10	22	(7.2)	14	(4.6)	8	(2.5)	8	(3.9)
11 - 20	14	(4.6)	10	(3.3)	5	(1.6)	1	(0.5)
21 or more	0	(0.0)	2	(0.7)	0	(0.0)	1	(0.5)
TOTAL (%)	306	(100.)	302	(100.)	314	(100.)	206	(100.)
Mean days suspended for all dropouts	1.73		1.66		0.77		0.78	
Mean days suspended for dropouts who were suspended	5.68		4.64		2.51		5.71	

FIGURE 7. MEAN DAYS SUSPENDED: DROPOUT STUDENTS GRADES 9 THROUGH 12: 1987–88

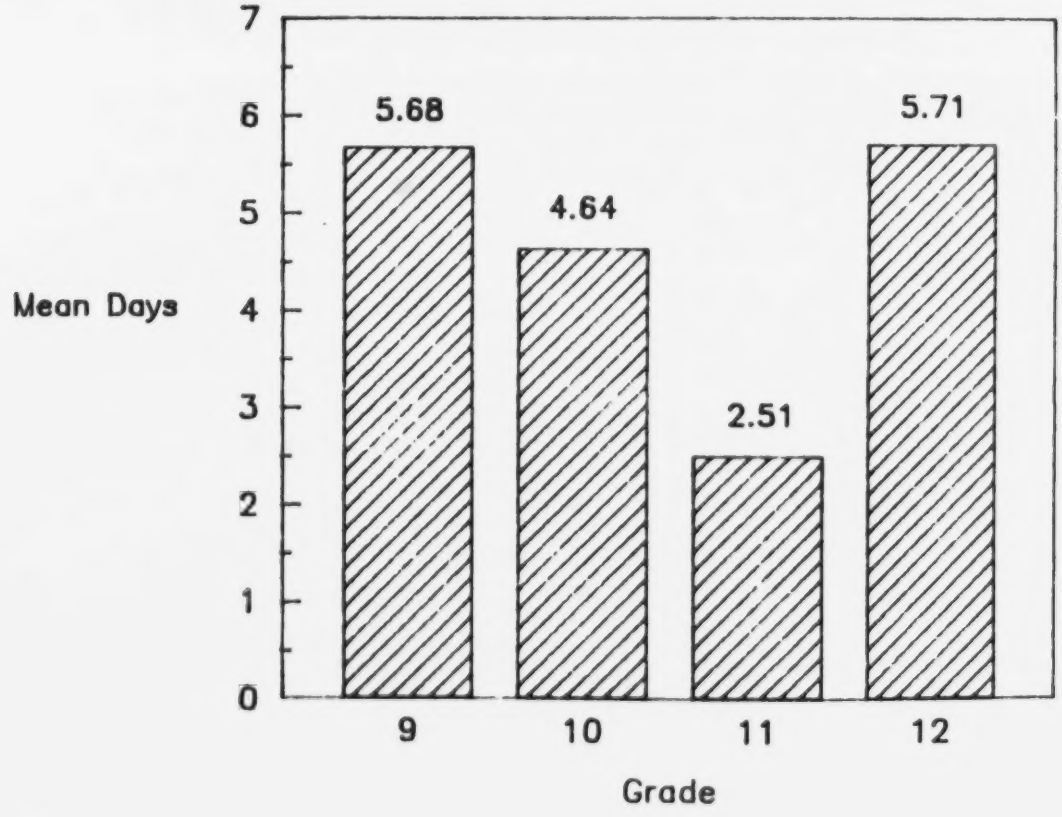


Table 11 compares the distribution of days suspended for dropouts versus all students in grades nine through twelve. In all categories except "21 or more" days, the rate of suspensions for dropout students exceeded the systemwide rates for all students.

Table 11

Suspension Frequencies and Percentages
Dropouts (9-12) vs. Systemwide (9-12)
1987-88

Number of Days Suspended	Dropouts Number (%)	Systemwide Number (%)
None	864 (76.5)	13,941 (80.6)
1 - 5	179 (15.9)	2108 (12.2)
6 - 10	52 (4.6)	581 (3.4)
11 - 20	30 (2.7)	205 (1.2)
21 or more	3 (0.3)	465 (2.7)
Students Suspended One or More Times	264 (23.4)	3359 (19.4)
TOTAL (%)	1128 (100.)	17,300 (100.)

FIGURE 8. % SUSPENSIONS BY DAYS DROPOUTS VS. REGULAR STUDENTS: 1987–88

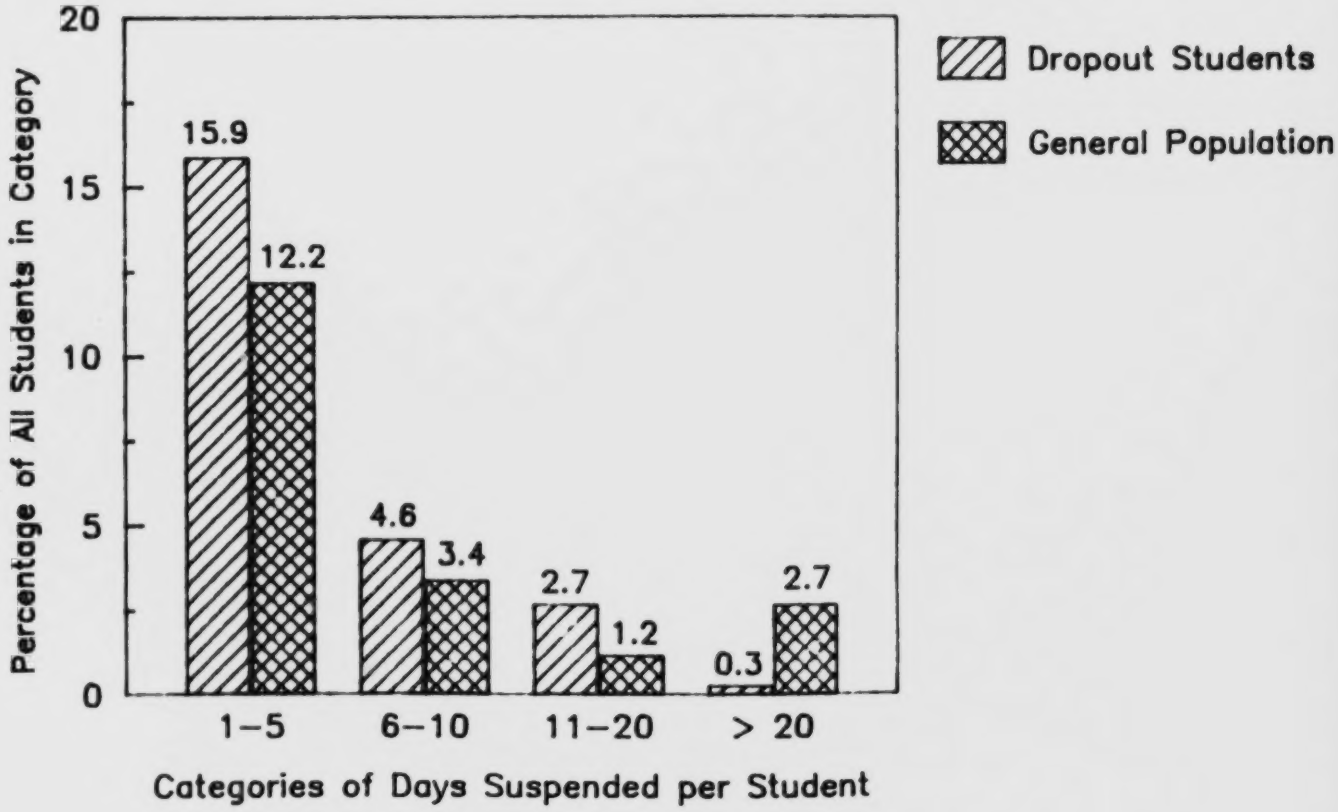
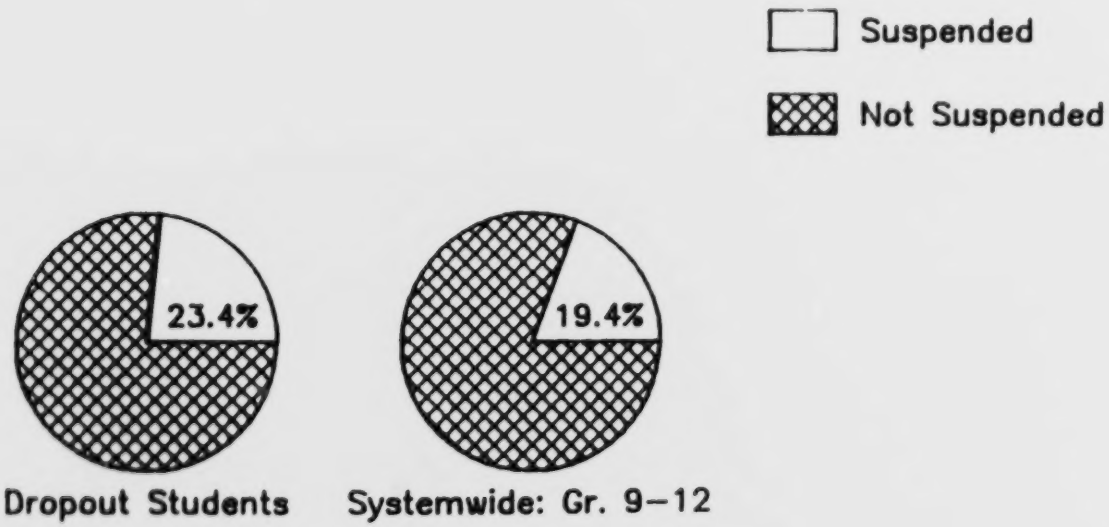


FIGURE 9. STUDENTS SUSPENDED ONE OR MORE TIMES GRADES 9 THROUGH 12: 1987–88



8. How well did the dropouts perform on the state mandated Stanford Test of Academic Skills (TASK 2) ?

Since fall 1985 ninth and twelfth graders have taken the TASK 2 test which is mandated by the state. Ninth graders took the test in October and twelfth graders took the test in February. For the analyses reported in Tables 12 through 16 ninth grade TASK 2 scores were collected from state data tapes for dropout students in grades 9, 10, and 11. For grade 12 students TASK 2 scores from February 1988 scores were analyzed for those students who were enrolled at that time. Selection was made based on the six digit identification number on the state data tape. For those students with incorrect or incomplete identification numbers, individual searches were made in the computer printed score listing. As seen in the tables, the number of students found to have valid TASK 2 scores was very low. This was due to several reasons: 1) missing or incomplete identification numbers on the state data tapes, 2) high absentee rates for the student in the study as shown in Table 7, 3) high mobility rates of students resulting in difficulty in manually tracking student test scores across several years when the student has made several moves among different schools.

READING

Below Average (stanines 1-3) results in READING were obtained for 64.2% of ninth grade dropouts; 40.2% for grade 10; 22.7% for grade 11; and 30.0% for grade 12.

Average (stanines 4-6) results were obtained for 33.3% of ninth grade dropouts; 55.7% for grade 10; 70.7% for grade 11; and 54.0% for grade 12.

Above Average (stanines 7-9) results were obtained for only 2.5% of ninth grade dropouts; 4.1% for grade 10; 6.7% for grade 11; and 16.0% for grade 12.

Overall, performance on the READING subtest was considerably higher for 11th and 12th grade dropouts when compared to 9th and 10th graders. This is evident by examining the percentages in the categories above, as well as by noting the mean stanines: grade 9, 3.25; grade 10, 3.89; grade 11, 4.57; and grade 12, 4.54.

ENGLISH

Below Average (stanines 1-3) results in ENGLISH were obtained for 45.7% of ninth grade dropouts; 37.9% for grade 10; 24.1% for grade 11; and 23.4% for grade 12.

Average (stanines 4-6) results were obtained for 53.1% of 9th grade dropouts; 58.6% for grade 10; 62.7% for grade 11; and 55.3% for grade 12.

Above Average (stanines 7-9) results were obtained for only 1.2% of ninth grade dropouts; 3.4% for grade 10; 13.3% for grade 11; and 21.3% for grade 12.

Overall, performance on the ENGLISH subtest was considerably higher for 11th and 12th grade dropouts wnen compared to 9th and 10th graders.
Mean stanines for the respective grades were: grade 9, 3.61; grade 10, 3.98; grade 11, 4.83; grade 12, 4.94.

MATHEMATICS

Below Average (stanines 1-3) results in MATHEMATICS were obtained for 55.1% of ninth grade dropouts; 45.7% for grade 10; 25.3% for grade 11; and 23.6% for grade 12.

Average (stanines 4-6) results were obtained for 42.7% of 9th grade dropouts; 50.4% for grade 10; 62.7% for grade 11; and 70.9% for grade 12.

Above Average (stanines 7-9) results were obtained for only 2.2% of ninth grade dropouts; 3.9% for grade 10; 12.0% for grade 11; and 5.5% for grade 12.

Overall, performance on the MATHEMATICS subtest was considerably higher for 11th and 12th grade dropouts when compared to 9th and 10th graders. Mean stanines were: grade 9, 3.33; grade 10, 3.82; grade 11, 4.61; grade 12, 4.58.

SCIENCE

Below Average (stanines 1-3) results in SCIENCE were obtained for 57.8% of ninth grade dropouts; 46.7% for grade 10; 21.0% for grade 11; and 44.0% for grade 12.

Average (stanines 4-6) results were obtained for 41.0% of 9tn grade dropouts; 45.8% for grade 10; 70.4% for grade 11; and 42.0% for grade 12.

Above Average (stanines 7-9) results were obtained for only 1.2% of ninth grade dropouts; 7.5% for grade 10; 8.6% for grade 11; and 14.0% for grade 12.

Overall, performance on the SCIENCE subtest was considerably higher for 11th and 12th grade dropouts when compared to 9th and 10th graders.
Mean stanines were: grade 9, 3.40; grade 10, 3.83; grade 11, 4.59; grade 12, 4.14.

SOCIAL SCIENCE

Below Average (stanines 1-3) results in SOCIAL SCIENCE were obtained for 56.0% of ninth grade dropouts; 39.4% for grade 10; 17.9% for grade 11; and 37.3% for grade 12.

Average (stanines 4-6) results were obtained for 42.9% of 9th grade dropouts; 57.5% for grade 10; 72.6% for grade 11; and 60.8% for grade 12.

Above Average (stanines 7-9) results were obtained for only 1.2% of ninth grade dropouts; 3.1% for grade 10; 9.5% for grade 11; and 2.0% for grade 12.

Overall, performance on the SOCIAL SCIENCE subtest was considerably higher for 11th grade dropouts when compared to 9th,

10th, and 12th graders. Mean stanines for the respective grades were: grade 9, 3.48; grade 10, 3.95; grade 11, 4.57; grade 12, 3.94.

Table 12

READING Subtest
Stanford Test of Academic Skills (TASK 2),
Stanine Distribution and Mean Scores by Grade Level
1987-88

	Stanine	Percentile Range	GRADE 9	GRADE 10	GRADE 11	GRADE 12
	1	(1- 3)	2	1	0	2
Below Average	2	(4-10)	20	19	4	3
	3	(11-22)	30	29	13	10
			52	49	17	15
			64.2%	40.2%	22.7%	30.0%
	4	(23-39)	21	37	18	12
Average	5	(40-59)	3	23	27	10
	6	(60-[illegible])	3	8	8	5
			27	68	53	27
			33.3%	55.7%	70.7%	54.0%
	7	(77-88)	2	3	1	4
Above Average	8	(89-95)	0	2	2	3
	9	(96-99)	0	0	2	1
			2	5	5	8
			2.5%	4.1%	6.7%	16.0%
Number			81	122	75	50
Mean			3.25	3.89	4.57	4.54
System Mean			4.54	4.66	4.56	5.15

FIGURE 10. TASK 2 READING MEAN STANINES DROPOUTS VS. REGULAR STUDENTS: 1987–88

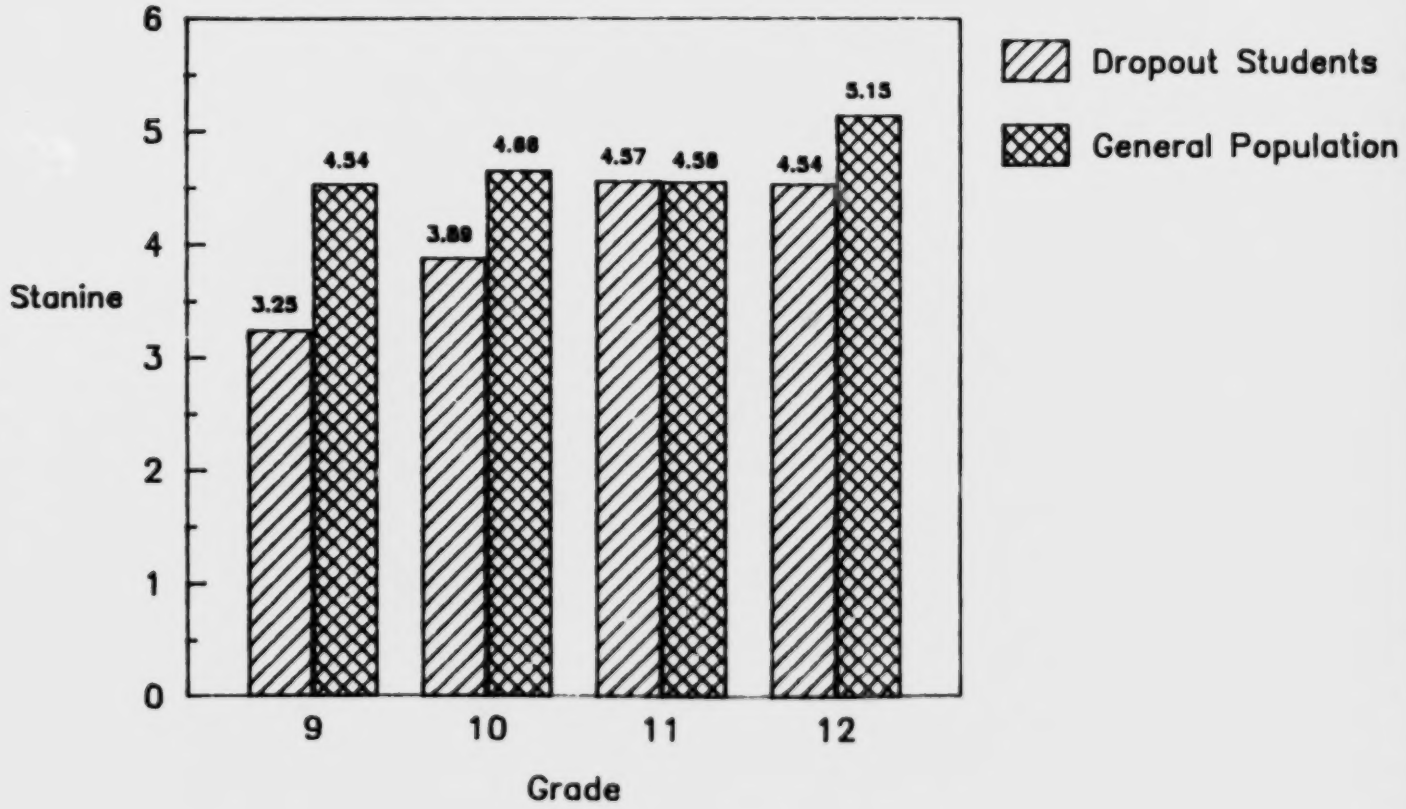


Table 13

ENGLISH Subtest
Stanford Test of Academic Skills (TASK 2),
Stanine Distribution and Mean Scores by Grade Level
1987-88

	Stanine	Percentile Range	GRADE 9	10	11	12
	1	(1- 3)	3	2	0	1
Below Average	2	(4-10)	10	13	6	1
	3	(11-22)	24	29	14	9
			37	44	20	11
			45.7%	37.9%	24.1%	23.4%
	4	(23-39)	27	34	13	11
Average	5	(40-59)	16	22	19	10
	6	(60-76)	0	12	20	5
			43	68	52	26
			53.1%	58.6%	62.7%	55.3%
	7	(77-88)	0	3	8	5
Above Average	8	(89-95)	0	1	3	2
	9	(96-99)	1	0	0	3
			1	4	11	10
			1.2%	3.4%	13.3%	21.3%
Number			81	116	83	47
Mean			3.61	3.98	4.83	4.94
System Mean			5.02	5.05	4.92	5.25

FIGURE 11. TASK 2 ENGLISH MEAN STANINES DROPOUTS VS. REGULAR STUDENTS: 1987-88

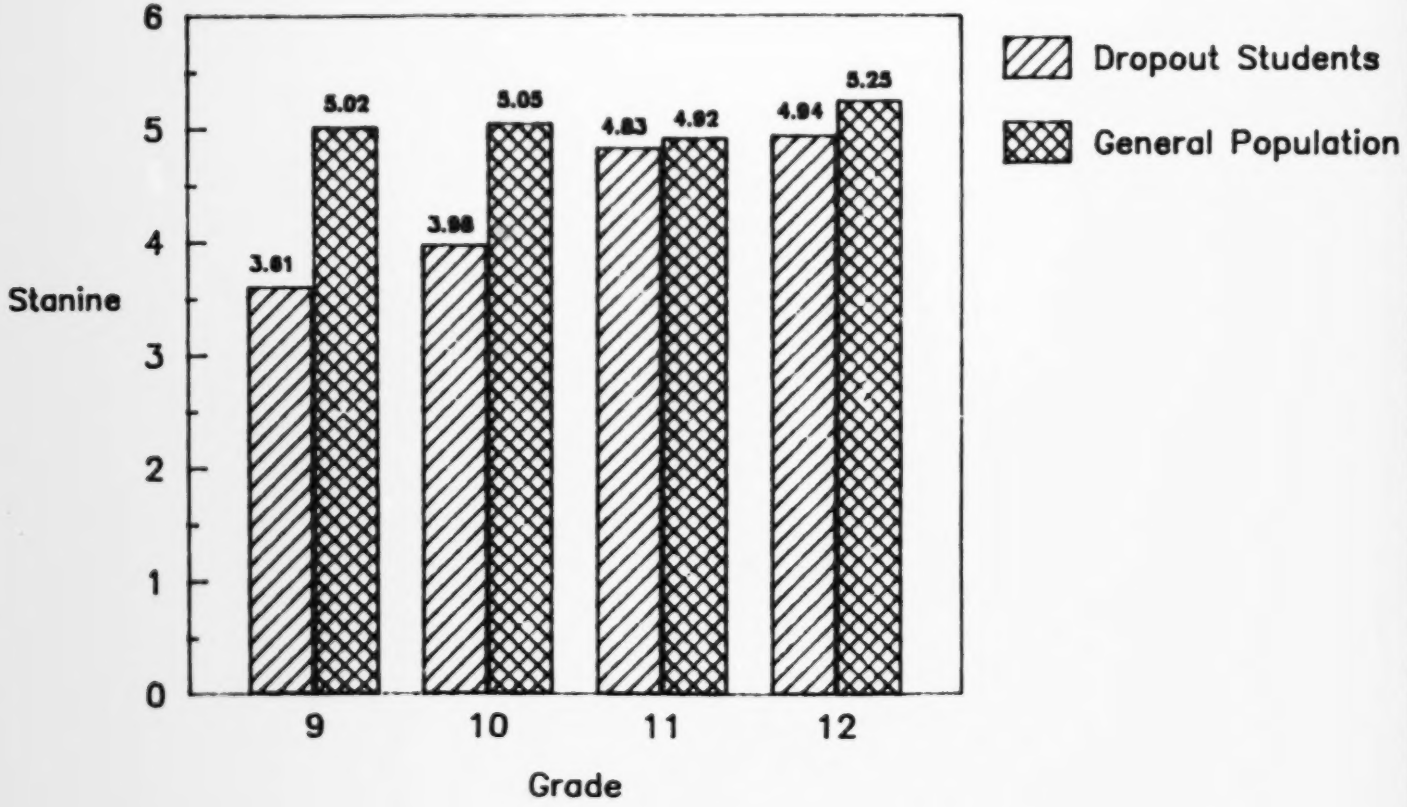


Table 14

MATHEMATICS Subtest
Stanford Test of Academic Skills (TASK 2),
Stanine Distribution and Mean Scores by Grade Level
1987-88

	Stanine	Percentile Range	GRADE 9	10	11	12
	1	(1- 3)	7	0	1	0
Below Average	2	(4-10)	9	13	3	4
	3	(11-22)	33	45	17	9
			49	58	21	13
			55.1%	45.7%	25.3%	23.6%
	4	(23-39)	32	41	19	15
Average	5	(40-59)	6	17	21	10
	6	(60-76)	0	6	12	14
			38	64	52	39
			42.7%	50.4%	62.7%	70.9%
	7	(77-88)	2	2	8	1
Above Average	8	(89-95)	0	2	2	2
	9	(96-99)	0	1	0	0
			2	5	10	3
			2.2%	3.9%	12.0%	5.5%
Number			89	127	83	55
Mean			3.33	3.82	4.61	4.58
System Mean			4.84	4.72	4.63	4.98

FIGURE 12. TASK 2 MATHEMATICS MEAN STANINES DROPOUTS VS. REGULAR STUDENTS: 1987–88

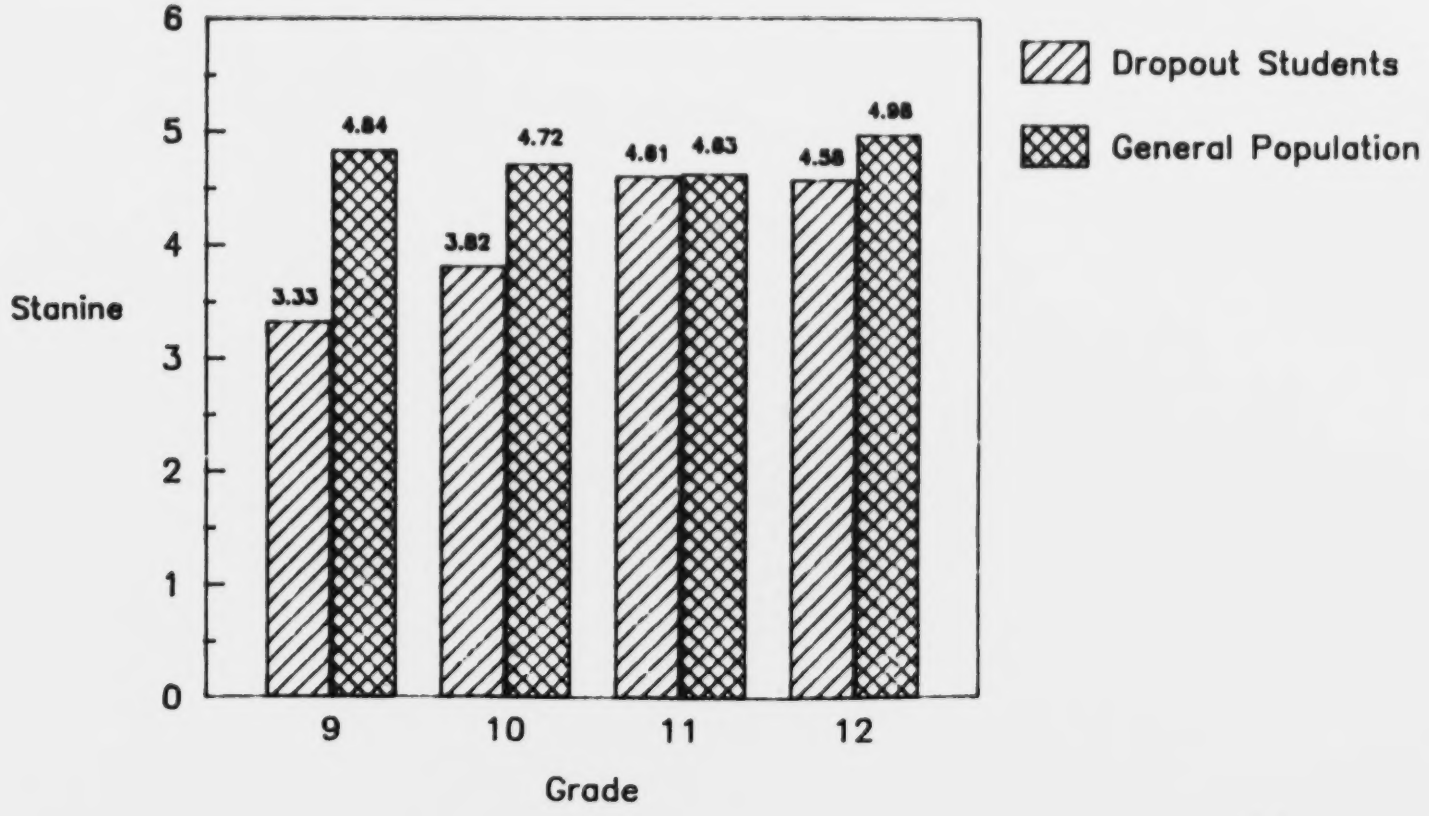


Table 15

SCIENCE Subtest
Stanford Test of Academic Skills (TASK 2),
Stanine Distribution and Mean Scores by Grade Level
1987-88

	Stanine	Percentile Range	GRADE 9	10	11	12
	1	(1- 3)	8	5	0	1
Below Average	2	(4-10)	14	17	6	3
	3	(11-22)	26	34	11	18
			48	56	17	22
			57.8%	46.7%	21.0%	44.0%
	4	(23-39)	16	32	24	11
Average	5	(40-59)	12	15	19	7
	6	(60-76)	6	8	14	3
			34	55	57	21
			41.0%	45.8%	70.4%	42.0%
	7	(77-88)	0	6	4	7
Above Average	8	(89-95)	1	1	3	0
	9	(96-99)	0	2	0	0
			1	9	7	7
			1.2%	7.5%	8.6%	14.0%
Number			83	120	81	50
Mean			3.40	3.83	4.59	4.14
System Mean			4.70	4.61	4.51	4.49

FIGURE 13. TASK 2 SCIENCE MEAN STANINES DROPOUTS VS. REGULAR STUDENTS: 1987–88

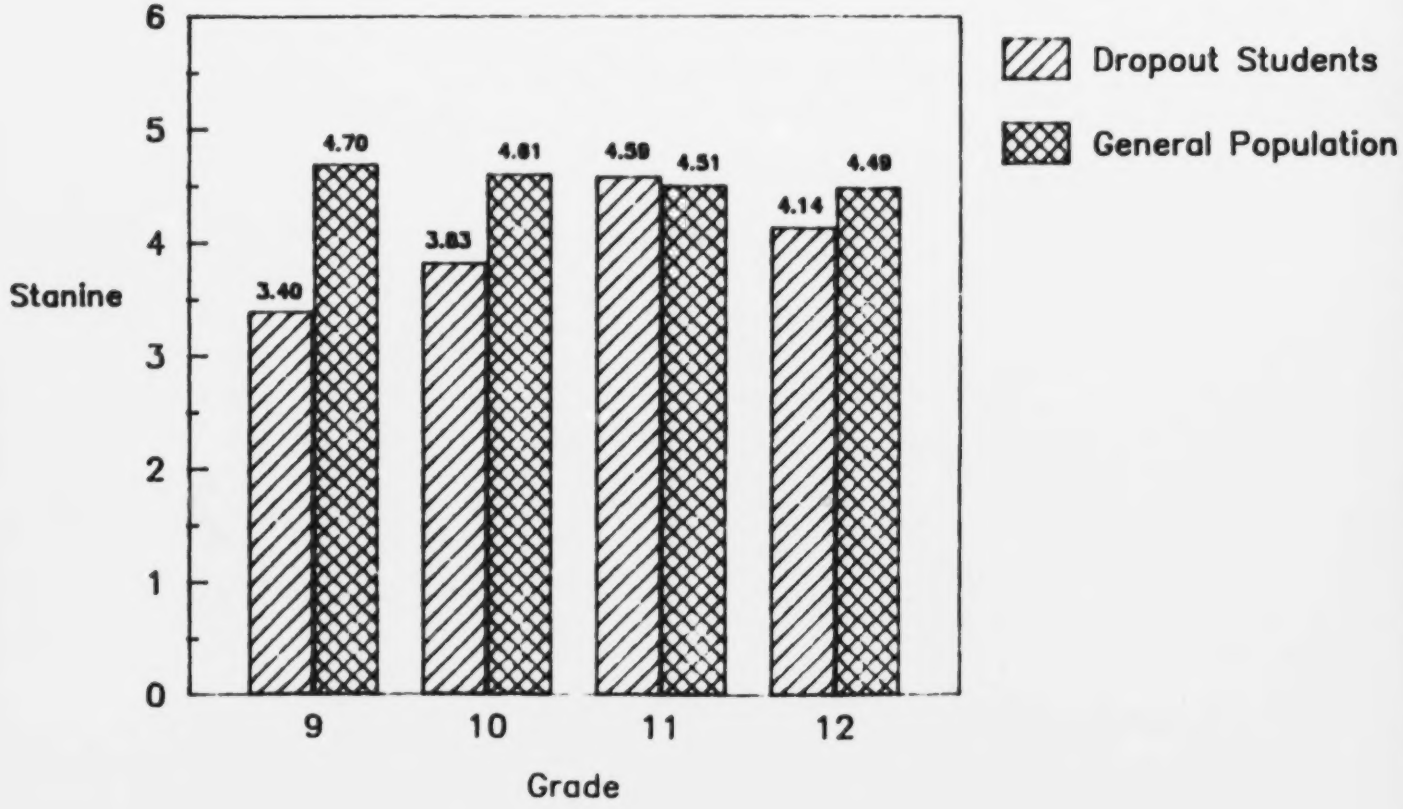
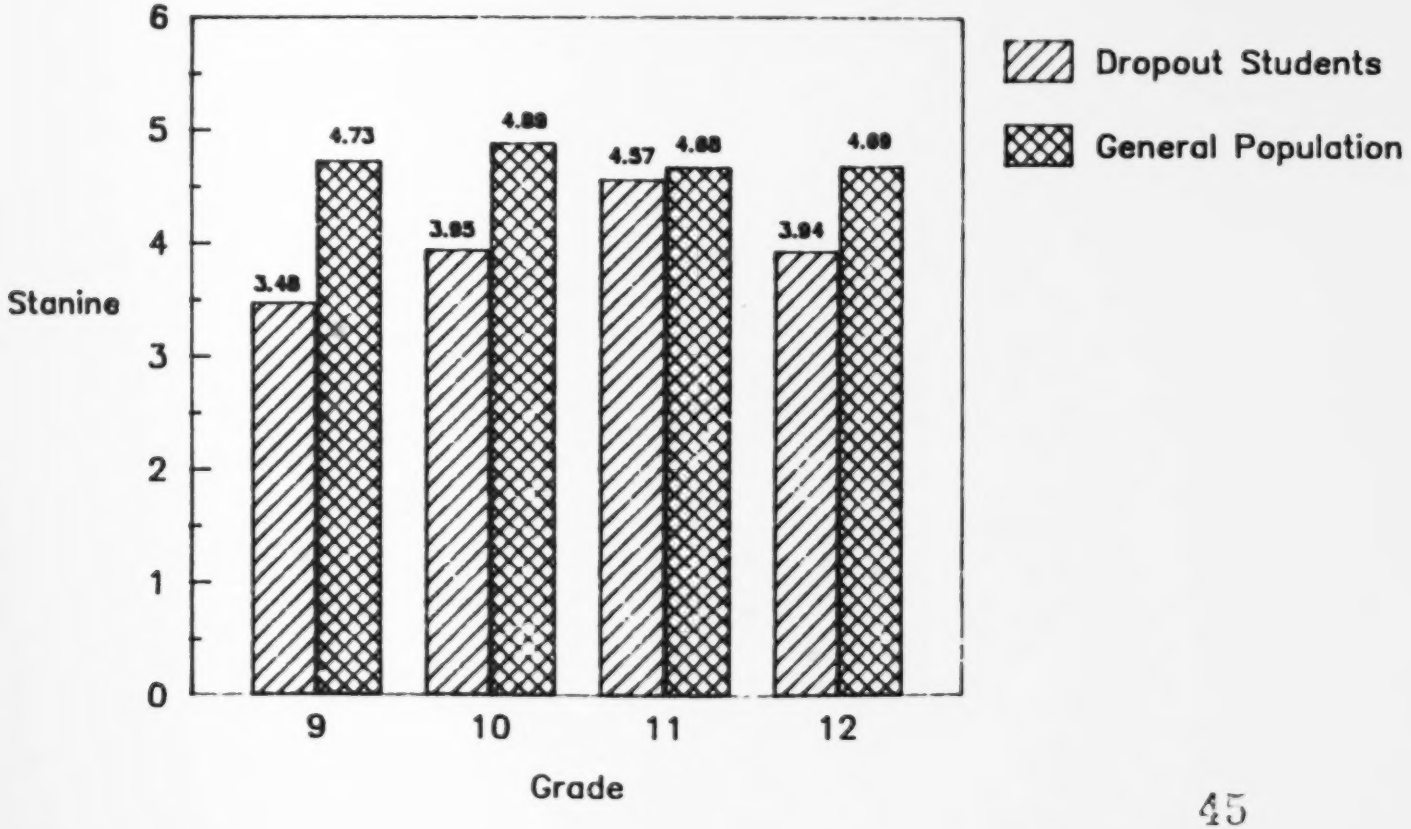


Table 16

SOCIAL SCIENCE Subtest
Stanford Test of Academic Skills (TASK 2),
Stanine Distribution and Mean Scores by Grade Level
1987-88

	Stanine	Percentile Range	GRADE 9	10	11	12
	1	(1- 3)	1	1	0	2
Below Average	2	(4-10)	13	12	3	6
	3	(11-22)	33	37	12	11
			47	50	15	19
			56.0%	39.4%	17.9%	37.3%
	4	(23-39)	25	39	31	16
Average	5	(40-59)	7	23	21	7
	6	(60-76)	4	11	9	8
			36	73	61	31
			42.9%	57.5%	72.6%	60.8%
	7	(77-88)	1	4	5	1
Above Average	8	(89-95)	0	0	3	0
	9	(96-99)	0	0	0	0
			1	4	8	1
			1.2%	3.1%	9.5%	2.0%
Number			84	127	84	51
Mean			3.48	3.95	4.57	3.94
System Mean			4.73	4.89	4.68	4.69

FIGURE 14. TASK 2 SOCIAL SCIENCE MEAN STANINES DROPOUTS VS. REGULAR STUDENTS: 1987-88



9. How well did tenth grade dropouts (W-6 withdrawal code) perform on the Tennessee Proficiency Test (TPT)?

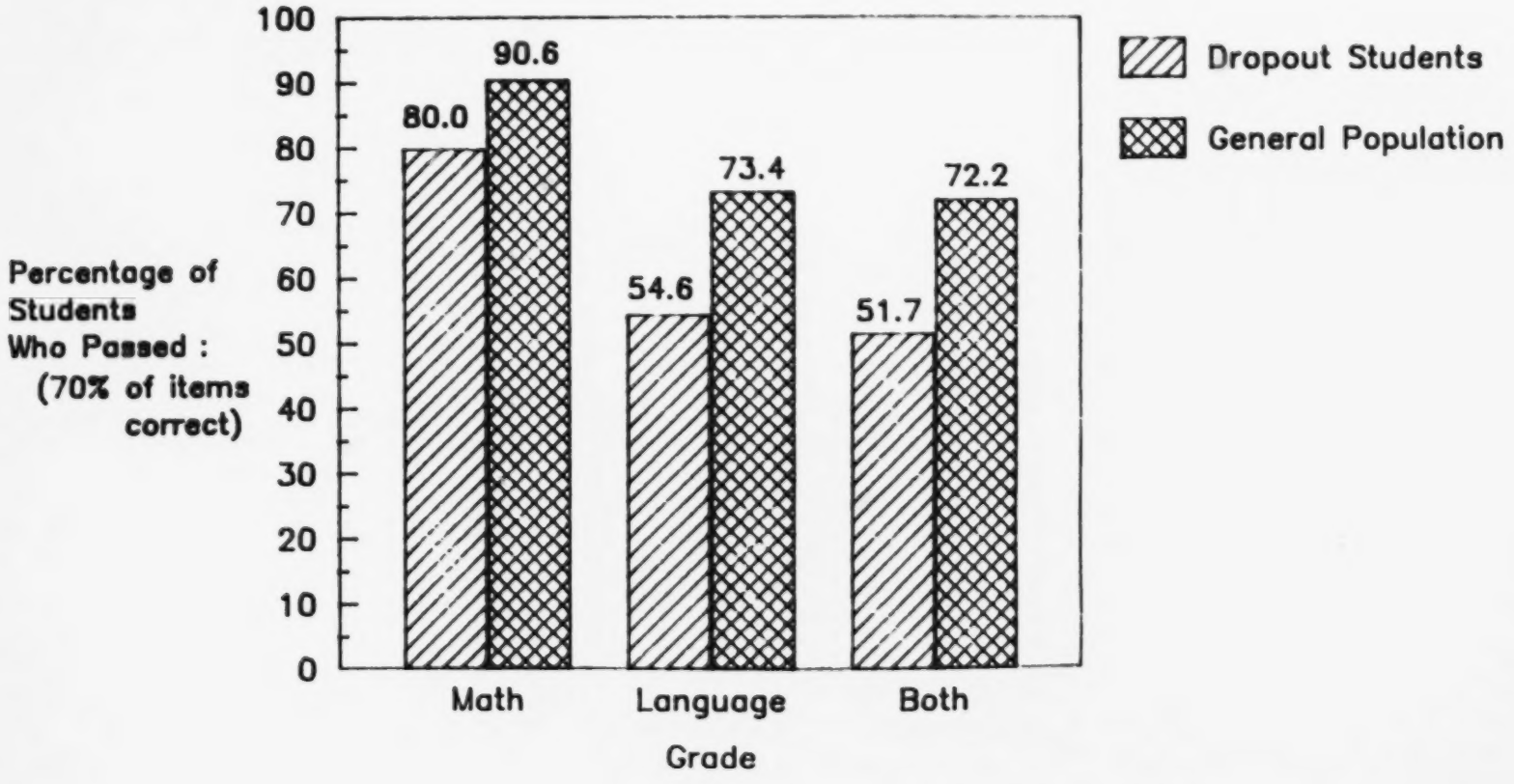
Tenth grade proficiency test results were analyzed in order to address the questions of how well dropout students performed on this test which is required for graduation in Tennessee. A score of 70% of items correct is required on each of the two subtests: Language Arts (reading, spelling, and language items) and Mathematics. Table 16 shows that 79.9% of 184 students taking the Mathematics test passed. On the Language Arts test 54.4% of 193 students reached the passing criterion. Only 51.2% of 172 students taking Mathematics and Language Arts tests passed both. Systemwide averages for ninth graders in 1987-88 were: Mathematics, 90.6%; Language Arts, 73.4%; and passing both, 72.2%.

Table 17

Tennessee Proficiency Test Results
Grade 10

Percentage of Items Correct		Mathematics	Language	Both Parts
90-99		41	6	
80-89		55	36	
70-79	Passing	52	64	
60-69	Failing	18	44	
50-59		7	18	
40-49		4	8	
30-39		4	12	
20-29		3	5	
0-19		1	1	
Number Tested		185	194	172
Mean Percentage of Items Correct		77.5	67.2	na
Number Passing		148	106	89
Percentage Passing		80.0	54.6	51.7
Percentage Passing (Systemwide)		90.6	73.4	72.2

FIGURE 15. PROFICIENCY TEST: % STUDENTS PASSING DROPOUTS VS. REGULAR STUDENTS: 1987–88



SUMMARY AND CONCLUSIONS

This study consisted of an analysis of several different demographic, behavioral, and academic characteristics of students who withdrew from grades 9, 10, 11, and 12 in Metropolitan Nashville Public Schools in 1987-88 for withdrawal code number six (data processing code W-6: voluntary withdrawal at legal age of 17 because of academic difficulty, lack of interest in school, parental influence, and economic reasons). Data were obtained from the 1987-88 computer-based master attendance file.

There were 1128 high school students who left school before graduation during the school year 1987-88 (grade 9, 306; grade 10, 302; grade 11, 314; grade 12, 206). Dropout students had approximately the same racial composition (about 36% black) as the general population of students in grades nine through twelve in Metro Schools (see Table 2). However, a disproportionate percentage of males withdrew from school, accounting for about 60% of all dropouts (see Table 3).

Dropouts tended to be overage in comparison to their peers at any given grade level. In grades eleven and twelve some "age appropriate" students were old enough to begin leaving school before graduation (see Tables 4 and 5).

Dropouts in the study tended to be enrolled for less than half the school year, about eighty days (see Table 6). The attendance rates for withdrawing students averaged about 80% while attendance rates for the general population of students in grades nine through twelve was more than 90% (see Table 7).

Withdrawing students exhibited a slightly higher rate of suspension (number of students suspended divide by total number of students in group) when compared to the regular student population, about 23% compared to about 19%. Grades 9 and 10 had the highest rates, about 30% each (see Tables 9 and 10).

Achievement test scores for dropout students were lower than for the general school population. Average stanines for dropout groups tended to be one half to one and one half stanine points

(a nine point scale) lower than for the regular student groups. On all Stanford TASK 2 subtests the greatest discrepancy in stanine comparisons occurred in the ninth grade (see Tables 12 through 16).

Stanine percentage distributions on the READING test indicated that approximately two thirds (64.2%) of ninth grade dropouts had an obvious reading deficiency (stanines 1-3). The percentage of students who scored low on READING in grades 10, 11, and 12 were 40.2%, 22.7%, and 30.0%, respectively. Overall, ninth and tenth graders scored considerably lower on the READING test than eleventh and twelfth graders (see Table 12). Achievement test results in the areas of LANGUAGE, MATHEMATICS, SCIENCE, and SOCIAL SCIENCE revealed a similar pattern of low achievement in all grades, with the greatest deficiencies occurring in grades nine and ten (see Tables 13 through 16).

Proficiency Test scores were much lower for dropout students when compared to the general systemwide averages. Percentage of students passing MATHEMATICS was ten points lower (80.0% vs. 90.6%) and for LANGUAGE ARTS nearly twenty points lower (54.6% vs. 73.4%). Percentage of dropout students passing <u>both parts</u> was more than twenty points lower than the percentage for regular students, 51.7% compared to 72.2% (see Table 17).

The data presented in this study revealed a pattern of low achievement, poor attendance, and excessive behavior problems among dropout students who were generally overage and grade-retained. The analysis supports the widely held beliefs of educators regarding students who leave school before high school graduation. This study cannot answer the question of which behaviors or descriptive characteristics occurred first or which ones "caused" the others. It is evident, however, that there is a strong relationship among the variables of attendance, achievement, behavior, and grade retention. Systemwide attention to addressing any one of these problems will undoubtedly help in remediation of all the other problems discussed in this report.